

REMARKS

Claims 1-31 are still pending in the patent application.

The Obviousness Rejection

In paragraph 1 of the Office Action, claims 1-31 are rejected under 35 U.S.C. §103(a) as being unpatentable over Colonna et al. (U.S. Patent No. 6,115,620) in view of Vance (U.S. Patent No. 6,389,302).

Claim 1 recites an electronic device featuring a two-part device having a movable housing element with touch sensitive circuitry for providing a force position signal indicative of the position of a contact force thereon by a user in relation to at least one dimension of the movable housing element. The touch sensitive circuitry is shown in Figure 2 as element 30, and can be used to read user contact from the touch sensitive slide area.

Foremost, the obviousness rejection is respectfully traversed because the proposed combination of Colonna et al. in view of Vance does not teach or suggest an electronic device featuring a movable housing element with touch sensitive circuitry that provides a force position signal indicative of the position of a contact force thereon by a user in relation to at least one dimension of the movable housing element to a housing containing communications electronics, as recited in claim 1.

In Colonna et al., the first housing element 202 contains communications electronics, while the movable housing element 204

does not. The first housing element 202 provides a communication signal based on a force position signal indicative of the position of contact on the keypad 206 of the first housing element 202, not the movable housing element 204. In other words, Colonna et al.' movable housing element 204 does not contain touch sensitive circuitry for providing a force position signal, as claimed herein.

Vance is being cited for making up the deficiency in the teaching of Colonna et al.. In effect, the reasoning in paragraph 1 of the Office Action cites Vance for disclosing the claimed touch sensitive circuitry for providing a contact position signal indicative of the position of the contact force in relation to at least one dimension of the movable housing element.

However, Vance merely discloses a method and apparatus for causing a wireless communication device 10 to vibrate via a piezoelectric vibrator 30 as a substantially silent alarm or pager to alert the user, as described in column 1, lines 21-22. The piezoelectric vibrator 30 deflects or bends in response to an applied voltage from a battery 20, as described in column 5, lines 16-31. The battery 20 is arranged in a spring loaded configuration, as described in column 5, lines 46-60. However, Vance's piezoelectric vibrator 30 is not the claimed touch sensitive circuitry, as the term is used in the patent application, as well as how the term is known and used by a

person skilled in the art. For example, Vance's piezoelectric vibrator 30 neither responds to any contact force by a user, nor provides a contact position signal indicative of the position of the contact force applied by the user in relation to at least one dimension of the movable housing element. In contrast, Vance's piezoelectric vibrator 30 merely vibrates in response to the applied voltage from the battery 20. Clearly, the vibratory movement of Vance's piezoelectric vibrator 30 contains no information whatsoever about a position of a contact force applied by a user in relation to at least one dimension of the movable housing element.

Moreover, it is respectfully submitted that the cited references teach solutions to problems that are very different than that addressed by the claimed invention. In view of this, the two cited references do not teach or suggest, or make obvious, the claimed invention, and one of ordinary skill in the art would not be motivated or desire to combine the same in the manner proposed in the reasoning in paragraph 1.

For example, the problem that Colonna et al. is trying to solve is completely different from that being solved by Applicant with the instant invention. Colonna et al. is solving the problem of altering the volume of the speaker in the communications device according to the distance from the user's ear. This is achieved by sensing the mode of the device from the position of the movable housing element, and adjusting the volume

to be louder if the device is in the hands-free mode and softer if the device is in the private mode. There is no mention that the position of the contact force would be sensed, as was also admitted by the reasoning in paragraph 1 of the Official Action.

The problem that Vance is solving is to provide a way to silently alert the user of a portable communication device of an incoming call. For this purpose, Vance presents an arrangement where the battery of the device is fitted in place with spring-loaded power contacts, thereby allowing the battery to move within its compartment. At the opposite side of the battery, the battery is supported by a piezo-ceramic member that can be made to change its shape by applying an electric current to it and thereby causing the member to generate a force that moves the battery. A moving battery causes the center of gravity of the device to move, and by the law of inertia, this causes the vibration of the housing of the telephone since the housing is not fixedly mounted to the user of the device. Thus, the user of the device feels vibration when the piezo-ceramic member is activated.

Vance aims at generating a vibration to the device, whereas the applicant aims at providing a touch-sensitive component to the device. Vance uses a piezo-ceramic member that causes a force when applied an electric current to, whereas the applicant uses a touch-sensitive member that senses a force by the user and creates a signal that indicates the position of the force. Vance

presents a vibrating device, whereas the applicant presents a touch-sensitive device. in view of this, it is respectfully submitted that Vance solves a completely different problem, in a completely different way and, naturally, ends up with a completely different result.

Dependent Claims 2-3

Claims 2-3 depend directly or indirectly from claim 1, contain all the limitations thereof, and are deemed patentable over the proposed combination for all the reasons discussed above.

Moreover, it is respectfully submitted that the reasoning in paragraph 1 appears to be overlooking the "touch sensitive slide" limitation recited in claim 2. It is respectfully submitted that neither Colonna et al. nor Vance suggests such a touch sensitive slide or slidably mounted arrangement.

Independent Claim 4

Claim 4 recites a communications device featuring a touch sensitive slide being mounted movably on the main body for sliding along the main body, and touch sensitive slide circuitry for providing the touch sensitive slide signal indicative of the position of the contact force in relation to at least one dimension of the touch sensitive slide.

For reasons similar to those discussed above, neither

Colonna et al. nor Vance suggests a communications device featuring such a movable housing element with touch sensitive circuitry for providing a force position signal indicative of the position of a contact force thereon by a user in relation to at least one dimension of the movable housing element to a main body having a communications circuit, as recited in claim 4.

Moreover, Colonna et al. and Vance disclose hingably mounted devices, not a slidably mounted device, as claimed herein.

Moreover, it is respectfully submitted that the reasoning in paragraph 1 appears to be overlooking the "touch sensitive slide" limitation recited in claim 4. Similar to that discussed above, it is respectfully submitted that neither Colonna et al. nor Vance suggests such a touch sensitive slide or slidably mounted arrangement.

Dependent Claims 5-31

Claims 5-30 depend directly or indirectly from claim 4, contain all the limitations thereof, and are deemed patentable over the proposed combination for all the reasons discussed above. Claim 31 recites that the touch sensitive slide has a keyboard surface and is responsive to the contact force being applied on the keyboard surface.

Conclusion

Reconsideration and early allowance of the claims is earnestly solicited.

Respectfully submitted,



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